

Title (en)  
WIRELESS CHARGING DEVICE

Title (de)  
DRAHTLOSE LADEVORRICHTUNG

Title (fr)  
DISPOSITIF DE CHARGE SANS FIL

Publication  
**EP 3361597 A4 20190116 (EN)**

Application  
**EP 17838117 A 20170911**

Priority  
• KR 20160178386 A 20161223  
• KR 2017009956 W 20170911

Abstract (en)  
[origin: EP3361597A1] Disclosed is a wireless charging device including a first cover, at least a portion of a surface of which has a frictional force of a specific magnitude, a second cover disposed under the first cover and having an elastic force of a specific magnitude, an upper housing disposed under the second cover, a lower housing coupled to the upper housing, at least one charging coil disposed between the upper housing and the lower housing and configured to supply electric power to an electronic device positioned on an upper surface of the first cover, a power source part connected to the at least one charging coil, and a holding state changing part configured to help change holding states of the upper housing and the lower housing.

IPC 8 full level  
**H02J 7/00** (2006.01); **B60R 11/02** (2006.01); **H02J 7/02** (2016.01); **H02J 50/10** (2016.01); **H02J 50/40** (2016.01)

CPC (source: EP KR US)  
**B60R 11/0241** (2013.01 - KR); **H02J 7/0042** (2013.01 - US); **H02J 7/0044** (2013.01 - EP KR US); **H02J 7/007192** (2020.01 - US); **H02J 50/10** (2016.02 - EP KR US); **B60R 11/0241** (2013.01 - EP); **F01P 5/02** (2013.01 - US)

Citation (search report)  
• [XYI] KR 20130077372 A 20130709 - WON HYE SOOK [KR]  
• [Y] KR 20160146478 A 20161221 - SAMSUNG ELECTRO MECH [KR]  
• [A] US 2012091952 A1 20120419 - OSHIMI MASANORI [JP], et al  
• [A] WO 2015152461 A1 20151008 - LG ELECTRONICS INC [KR]  
• [Y] US 2016064987 A1 20160303 - SHEU UEN-HOUR [TW], et al  
• See also references of WO 2018117372A1

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Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3361597 A1 20180815; EP 3361597 A4 20190116; EP 3361597 B1 20211027**; AU 2017314291 A1 20180712;  
BR 112018071857 A2 20190219; BR 112018071857 B1 20230411; CN 108668522 A 20181016; CN 108668522 B 20230113;  
KR 102661490 B1 20240429; KR 20180074372 A 20180703; MX 2018001534 A 20190429; US 10886760 B2 20210105;  
US 2020083726 A1 20200312; WO 2018117372 A1 20180628

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**EP 17838117 A 20170911**; AU 2017314291 A 20170911; BR 112018071857 A 20170911; CN 201780004142 A 20170911;  
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